

Three New Species and a New Combination in *Vallesia* (Apocynaceae)

J. Francisco Morales

Instituto Nacional de Biodiversidad (INBio), Apto. 22-3100, Santo Domingo de Heredia,
Costa Rica

ABSTRACT. Three new species of *Vallesia*, *V. sinaloensis*, *V. spectabilis*, and *V. vaupesana*, are described. In addition, a new combination, *Vallesia aurantiaca* (M. Martens & Galeotti) J. F. Morales, is proposed. New synonymies are also provided.

In the process of preparing the Apocynaceae treatment for the *Flora Mesoamericana*, the following novelties were found.

Vallesia aurantiaca (M. Martens & Galeotti) J. F. Morales, comb. nov. Basionym: *Neriandra* (?) *aurantiaca* M. Martens & Galeotti, Bull. Acad. Roy. Sci. Bruxelles 11: 356. 1844. TYPE: Mexico. Veracruz: Santiago de Huatusco, Apr. 1841 (fl), *Galeotti 1591* (holotype, BR; photograph INB ex BR).

Vallesia mexicana Müller Argoviensis, Linnaea 30: 393. 1859. Syn. nov. TYPE: Mexico. Veracruz: near Orizaba, Feb. 1854, *Botteri 473* (holotype, G-DC; isotype, MO; photograph INB ex G-DC).

Vallesia flexuosa Woodson, Ann. Missouri Bot. Gard. 24: 14. 1937. Syn. nov. TYPE: Costa Rica. Alajuela: Zarcero de Alfaro Ruiz, 21 Dec. 1924 (fl), *Brenes 4156* (holotype, F; isotype, CR; photograph, INB ex F).

In the last monograph of *Vallesia*, Meyer (1955) suggested the possibility that *Neriandra* (?) *aurantiaca* M. Martens & Galeotti is synonymous with *V. mexicana* Müller Argoviensis, as was pointed out by Standley (1924). Examination of the type material confirmed that *V. mexicana* must be reduced to the synonymy of *V. aurantiaca*.

In her monograph of *Vallesia*, Meyer (1955) recognized eight species, including two new species and two varieties. However, her thesis was never published. Therefore, these two unpublished names are validly published here.

Vallesia sinaloensis E. Meyer ex J. F. Morales, sp. nov. TYPE: Mexico. Sinaloa: Quebrada de Plátano, Sierra Monterrey, *Gentry 5907* (holotype, MO; isotypes, GH, NY, UC; photograph INB ex MO).

Arbor parva, ramulis maturitate fuscis. Folia elliptica vel anguste-elliptica, 7–11.5 × 2.5–3.5(–4) cm, subtus tomentulosa, apice acuminata. Inflorescentiae subumbelliformes, subterminales. Corollae tubo 8–10 mm, lobis 5 × 1.5–2 mm. Drupa 12–17 mm.

Shrub 3–7 m high; branchlets tomentulose. Leaves petiolate; petiole 7–11 mm long, glabrate; blade membranaceous, elliptic to narrowly elliptic, 7–11.5 × 2.5–3.5(–4) cm; acuminate at the apex, acute basally; upper surface glabrate, lower surface tomentulose; tertiary veins anastomosing beneath; stipules acute. Inflorescence subterminal, many-flowered, subumbelliform, glabrate; peduncle 6–11 mm long; pedicels 2.5–3 mm; bracts scarious and inconspicuous. Flowers: sepals broadly ovate, 1–1.5 × 1 mm, acuminate, glabrous; corolla salverform, inflated near the orifice, yellowish, glabrous without; tube 8–10 mm long; lobes very narrowly elliptic, 5 × 1.5–2 mm, obtuse to somewhat acute; stamens sessile or subsessile, inserted near the orifice of the tube; anthers narrowly ovate, ca. 2 mm long, apiculate; ovary 1–1.5 mm; style head cylindrical, ca. 1 mm, bifid. Fruits obovate, 12–17 mm long; seeds unknown.

This species occurs in northwestern Mexico, in the state of Sinaloa, where it grows at elevations of 900–1000 m.

Vallesia sinaloensis could be confused with *V. spectabilis* but is easily distinguished by its tomentulose leaves beneath and smaller flowers.

Vallesia spectabilis E. Meyer ex J. F. Morales, sp. nov. TYPE: Mexico. San Sebastian, *Mexia 1915* (holotype, MO; isotypes, F, GH, NY, UC, US; photograph INB ex F).

Arbor parva, ramulis maturitate glabris. Folia elliptica vel anguste-elliptica, 10–15 × 3–4.5 cm, glabra, apice acuminata. Inflorescentiae subumbelliformes, subterminales vel terminales. Corollae tubo 11–13 mm, lobis 4–5 × 2 mm. Drupa 13–17 mm.

Shrub 4–7 m high; branchlets glabrous. Leaves petiolate; petiole 7–10 mm long, glabrous; blade firmly membranaceous, elliptic to narrowly elliptic, 10–15 × 3–4.5 cm; acuminate at the apex, obtuse

basally; glabrous; tertiary veins anastomosing; stipules not seen. Inflorescence terminal or subterminal, many-flowered, subumbelliform, agglomerate; peduncle 9–15 mm long; pedicels 3–4 mm; bracts scarious and inconspicuous. Flowers: sepals ovate, 1–1.5 × 1 mm, acute to acuminate, glabrous; corolla salverform, inflated near the orifice, in the position of the stamens, white, glabrous without; tube 11–13 mm long; lobes very narrowly elliptic, 4–5 × 2 mm, obtuse to somewhat acute; stamens sessile or subsessile, inserted near the orifice of the tube; anthers narrowly ovate, ca. 1.5 mm long, apiculate; ovary 1–1.5 mm; style head cylindrical, ca. 1 mm, bifid. Fruits reniform to obovate, 13–17 mm long; seeds unknown.

Vallesia spectabilis is known from Mexico, where it is restricted to the State of Jalisco, at 1300–2100 m.

This species is vegetatively quite similar to *Vallesia mexicana* Müller Argoviensis but differs by its larger flowers and fruits. Additionally, *V. spectabilis* is distinguished from *V. sinaloensis* by its glabrous leaves.

Paratypes. MEXICO. **Jalisco:** Sierra de Manantlán Occidental, between Puerto del Picacho de San Campus and Cerro Las Chilillas, 25 Dec. 1984, *Judziewicz et al.* 4978 (USF, WIS not seen); trail from Sebastian to Arroyo Seco, *Mexia 1435* (CAS, F, GH, MO, NY, UC).

Vallesia vaupesana J. F. Morales, sp. nov. TYPE. Colombia. Vaupes: Mitú and vicinity, lower Río Paraná–Pichuna, savanna at major rapids, 10 Sep. 1976, *Zarucchi 2016* (holotype, INB; isotype, COL).

Arbuscula, ramulis puberulis. Folia auguste-ovata vel auguste-elliptica, 0.7–2.4 × 0.3–1.4 cm, apice acuta vel obtusa, glabra, coriacea. Inflorescentiae corymbosae, subterminales. Corollae tubo 1–1.5 mm, lobis 2.5–3 × 1 mm. Drupa 6–8 mm.

Shrub less than 1 m high; branchlets densely and minutely puberulent when young, glabrate when fully mature. Leaves petiolate; petiole 1–2(–3) mm

long, minutely puberulent to glabrate; blade coriaceous to subcoriaceous, narrowly ovate to narrowly elliptic, 0.7–2.4 × 0.3–1.4 cm; acute to obtuse at the apex, obtuse to obscurely cordate basally; glabrous to glabrate on both sides; secondary veins inconspicuous. Inflorescence subterminal, many-flowered, somewhat spreading, not agglomerate, minutely puberulent; peduncle 3–6 mm long; pedicels 1.5–2.5 mm; bracts scarious and inconspicuous. Flowers: sepals broadly ovate, less than 0.3 mm, rounded, glabrous; corolla salverform, greenish to yellowish, glabrous without; tube 1–1.5 mm long; lobes very narrowly elliptic, 2.5–3 × 1 mm, acute; stamens sessile or subsessile, inserted near the orifice of the tube; anthers suborbicular, ca. 0.7 mm long, obtuse to somewhat retuse; ovary ca. 0.5 mm; style head subglobose, ca. 0.3 mm, inconspicuously bifid. Fruits subglobose, 6–8 mm long, solitary, orange; seeds unknown.

This species is currently known only from Colombia, in the Vaupes and Guainia states, but probably will be found in the Amazon basin in Brazil and Venezuela.

Vallesia vaupesana is easily distinguished by its small habit, small leaves, open inflorescence, and suborbicular fruits, a combination of characters unique in the genus.

Paratypes. COLOMBIA. **Guainía:** Puerto Inírida, Río Inírida, 14 Aug. 1975, *García-Barriga 20820* (COL, INB). **Vaupés:** savanna de Yapobodá, near Maloca of Yararáca, Alto Cuduyarí, 10 Dec. 1943, *Allen 3198* (COL), *Allen 3206* (COL).

Acknowledgments. I thank the curators and directors of the following herbaria for the loan of material: A, COL, CR, ENCB, F, GH, HUA, MO, NY, US, and USJ.

Literature Cited

- Meyer, E. 1955. The genus *Vallesia*. A Systematic Study. Masters's Thesis, Washington University, St. Louis, Missouri.
Standley, P. C. 1924. Trees and shrubs of Mexico. *Contr. U.S. Natl. Herb.* 23: 1151.